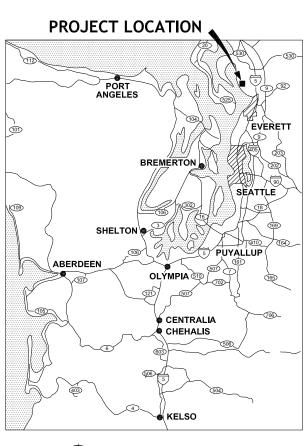
# THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT**



# HERMOSA BEACH ROAD AND FRYBERG ESTATES

**TULALIP INDIAN RESERVATION** SNOHOMISH COUNTY





### **DESIGN STANDARDS:**

WSDOT DESIGN MANUAL 2024 WSDOT STANDARD PLANS 2024

#### STANDARD SPECIFICATIONS:

WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2024





	DRAWING INDEX						
DWG NO.	SHEET NO.	SHEET TITLE					
GENERAL	GENERAL						
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G2	02	LEGEND & ABBREVIATIONS					
KM1	03	KEY MAP					
HC1	04	HORIZONTAL CONTROL PLAN					
HC2	05	HORIZONTAL CONTROL PLAN					
HC3	06	HORIZONTAL CONTROL PLAN					
WATER							
W1	07	WATER PLAN & PROFILE HERMOSA BEACH RD					
W2	08	WATER PLAN & PROFILE HERMOSA BEACH RD					
W3	09	WATER PLAN & PROFILE HERMOSA BEACH RD					
W4	10	WATER PLAN & PROFILE HERMOSA BEACH RD					
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W6	12	WATER METER AND PRV 47TH AVE NW					
W7	13	WATER METER AND PRV 47TH AVE NW					
W8	14	WATER METER AND PRV 45TH AVE NW					
W9	15	WATER METER AND PRV 46TH AVE NW					
W10	16	WATER METER AND PRV 76TH ST NW					
W11	17	WATER METER AND PRV 77TH ST NW					
W12	18	WATER METER AND PRV 77TH ST NW & 78TH PL NW					
W13	19	WATER METER AND PRV 78TH PL NW					
W14	20	WATER METER AND PRV 79TH ST NW					
W15	21	WATER METER AND PRV 79TH ST NW					
DETAIL							
DT1	22	WATER DETAILS					
DT2	23	WATER DETAILS					
DT3	24	WATER DETAILS					
DT4	25	TESC DETAILS					

#### OWNER:

THE TULALIP TRIBES 6406 MARINE DR TULALIP. WA 98271 ATTN: CHRISTINA PARKER CELL: (360) 913-4205 OFFICE: (360) 716-5024

#### **ENGINEER:**

PARAMETR**I**X 719 2ND AVE #200 SEATTLE, WA 98104 ATTN: HAPPY LONGFELLOW OFFICE: (206) 394-3700



$\triangleright$	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
				DRAWN
				Y. MAHMOODI CHECKED
				J. WRIGHT
				APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE
ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY
FILE NAME
PS1598158-PH1-G1
JOB No.
216-1598-158
DATE
MAY 2024





THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT** 

TULALIP WASHINGTON

**VICINITY & LOCATION MAPS, AND DRAWING INDEX** 

**COVER SHEET, PROJECT** 

DRAWING NO. 01 OF 25

G1

#### **LEGEND EXISTING** PROPOSED FOUND CASED/SURFACE MONUMENT FOUND REBAR AND CAP SET HUB & MAG NAIL SET REBAR WITH CAP DECIDUOUS TREE CONIFER TREE SIGN CATCH BASIN $\ominus$ AREA DRAIN POWER GUY ANCHOR POWER GUY POWER POLE POWER POLE WITH DROP LINE, TRANSFORMER POWER JUNCTION BOX POWER METER POWER MANHOLE TELEPHONE HAND HOLE POWER POLE WITH LIGHT AND TRANSFORMER LIGHT STANDARD GATE POST WATER METER FIRE HYDRANT ASSEMBLY GATE VALVE BLOWOFF ASSEMBLY ARV ASSEMBLY MB MAIL BOX WOOD POST FLAG POST STANDARD MANHOLE UNDERGROUND TELECOM UNDERGROUND POWER OVERHEAD POWER WATER SERVICE LINE, SIZE AS NOTED WATER LINE, SIZE AS NOTED SANITARY SEWER GRAVITY MAIN, SIZE AS NOTED STORM DRAIN PIPE, SIZE AS NOTED EDGE OF ASPHALT PAVEMENT CHAIN LINK FENCE BUILDING OUTLINE

EDGE OF VEGETATION

MINOR CONTOUR, 1 FT

MAJOR CONTOUR, 5 FT

ROCKERY WALL

PROPERTY LINE

LOT LINE

#### **ABBREVIATIONS**

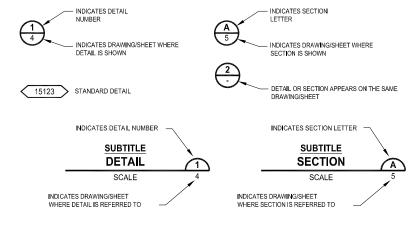
ABBREV	/IATIONS		
ABBREV AGG APPROX ASPH ASSY AVE AVG BCR BLVD BBLVD BBN BRG BCCO COMP CONC CONST CONS	AGGREGATE APPROXIMATE AMERICAN PUBLIC WORKS ASSOCIATION ASPHALT ASSEMBLY AVENUE AVERAGE BEGINNING OF CURVE, BOLT CIRCLE BEGINNING OF CURVE CENTER BUILDING BOULEVARD BEAM, BENCH MARK BEARING BEGIN VERTICAL CURVE CAPACITY CEMENT CLEAR, CLEARANCE COUNTY, CLEANOUT COMPACTION CONCRETE CONNECT, CONNECTION CONSTRUCT, CONSTRUCTION CONSTRUCT, CONSTRUCTION CONTRACTOR COORDINATE CRUSHED SURFACING BASE COURSE CRUSHED SURFACING TOP COURSE CENTER CUBIC FOOT, CUBIC FEET CUBIC YARD DEMOLITION DEPARTMENT DETAIL DIAMETER DIMENSION DISTANCE, DISTRICT DESIGN DRAWING EAST, EASTING EACH END OF CURVE ELEVATION ELBOW	G GND GR GV ID IE IN INSTL INT INV JB JCT LAT LB LBL LF LN MATL MIN MATL MIN MON MW N NIC NO. NTS PC PI PIVC PP PRV PSI PT PWR QUAL	GAS GROUND GRADE GENERAL USE LEVEL DESIGNATION GATE VALVE INSIDE DIAMETER INVERT ELEVATION INCH INSTALL, INSTALLATION INTERIOR, INTERSECTION INVERT JUNCTION BOX JUNCTION LATERAL, LATITUDE POUND LABEL LINEAR FEET, LINEAR FOOT LANE LEFT MANUAL MATERIAL MINIMUM, MINUTE MISCELLANEOUS MONUMENT MONITORING WELL NORTH, NORTHING NOT IN CONTRACT NUMBER NOT TO SCALE POINT OF CURVATURE POINT OF INTERSECTION, PRESSURE INDICATOR POINT OF INTERSECTION, PRESSURE RELIEF VALVE, PRESSURE REDUCING VALVE POUNDS PER SQUARE INCH POINT OF TANGENCY, POINT POINT OF VERTICAL INTERSECTION PAVEMENT, PAVING, PRIVATE POWER QUANTITY QUALITY
CONN	CONNECT, CONNECTION		MATERIAL
CONST	CONSTRUCT, CONSTRUCTION	MIN	MINIMUM, MINUTE
CONTR	CONTRACTOR	MISC	MISCELLANEOUS
COORD	COORDINATE	MON	MONUMENT
CSBC	CRUSHED SURFACING BASE COURSE	MW	MONITORING WELL
CSTC			· · · · · · · · · · · · · · · · · · ·
OIM	DIMENSION	PRV	PRESSURE REGULATING VALVE, PRESSURE RELIEF
JWG -			
- -Δ	•		
ĒL .	ELEVATION	QTY	QUANTITY
EOP	EDGE OF PAVEMENT	R	RISER
EQU <b>I</b> P	EQUIPMENT	RAD	RADIUS
EVC EX <b>I</b> ST	END VERTICAL CURVE EXISTING	RD RED	ROAD, ROOF DRAIN REDUCER
EXL	EXCAVATE	REF	REFERENCE
CR	FINE CRUSHED ROCK	REQD	REQUIRED
-G	FINISH GRADE	RFCA	RESTRAINED FLANGED COUPLING ADAPTER
FIN	FINISH, FINISHED	ROT	ROTATE
		ROW	RIGHT OF WAY
		RT DV	RIGHT
		RV RW	RELIEF VALVE RIGHT OF WAY
		S	SOUTH
		SCH	SCHEDULE

## GENERAL NOTES

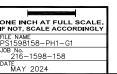
- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN ON THESE DRAWINGS AND TO OBTAIN ACCEPTANCE BY THE PROJECT OWNER.
- THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS. DRIVEWAYS AND ACCESSES SHALL REMAIN ACCESSIBLE AT ALL TIMES.
- EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS ON THESE PLANS. THE CONTRACTOR IS
  RESPONSBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES. NO
  SILTATION OF EXISTING DRAINAGE FACILITIES AND WETLANDS SHALL BE ALLOWED. CARE SHALL BE TAKEN
  TO PREVENT MIGRATION OF SILTS TO OFF-SITE PROPERTIES.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL "PRE-CONSTRUCTION" STATE OR BETTER.
- 5. ALL CONSTRUCTION MUST COMPLY WITH THE WSDOT STANDARD SPECIFICATION (LATEST EDITION) UNLESS OTHERWISE SUPERSEDED BY TRIBAL STANDARDS.

# Know what's below. Call before you dig.

# DETAIL AND SECTION DESIGNATION



PATH	$\nabla$	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
					DRAWN Y. MAHMOODI
C2					CHECKED
5					J. WRIGHT
AYO					APPROVED H. LONGFELLOW







ROJECT NAME

SERV

SQ

SQFT

SOIN

SQYD

SSMH

STA

STD

SUR

SURV

SYS

TEL

TEMP

THRU

TOB

TOT

UP

VAR

VOL

SLOPE, RAW SLUDGE SPECIFICATION

SQUARE FOOT, SQUARE FEET

SQUARE INCH, SQUARE INCHES

SQUARE YARD, SQUARE YARDS

SANITARY SEWER MANHOLE

TEMPERATURE, TEMPORARY

WATER, WATT, WEST, WIDTH

WSDOT WASHINGTON STATE DEPARTMENT OF

SQUARE

STANDARD

SURFACE

SURVEY

SYSTEM

TELEPHONE

THROUGH

**TYPICAL** 

VOLUME

TOP OF BANK

UNDERGROUND

VALVE, VENT, VOLT

VARIES, VARIABLE

TRANSPORTATION

WATER METER WATER SURFACE

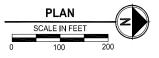
UTILITY POLE

THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

**LEGEND & ABBREVIATIONS** 

drawing no. 02 OF 25

G2





PA	$\supset$	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
					DRAWN Y. MAHMOODI
ΣM					CHECKED
5					J. WRIGHT
-AY0					APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY FILE NAME PS1598158-PH1-KEY MAP JOB No. 216-1598-158 DATE MAY 2024

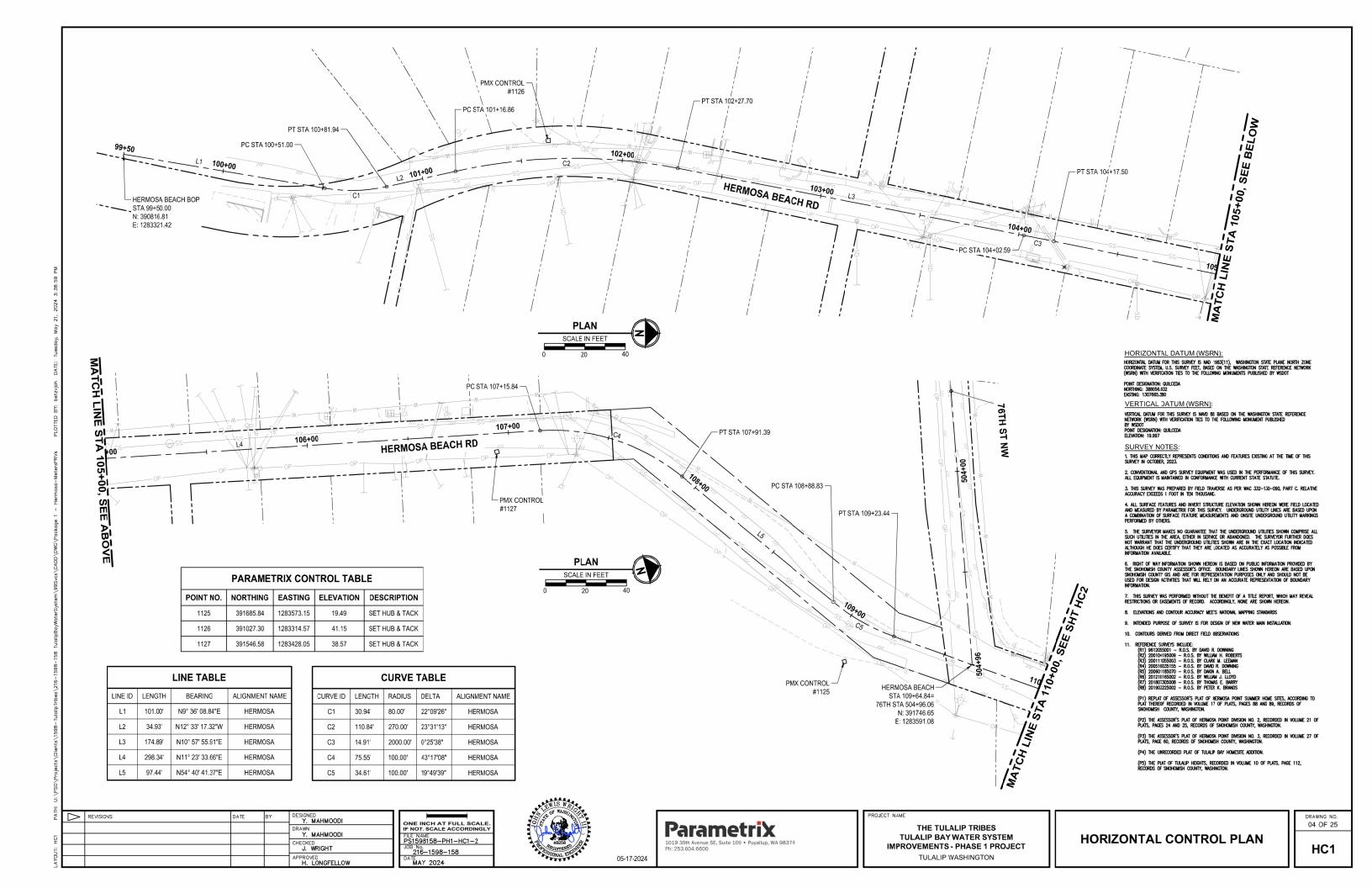


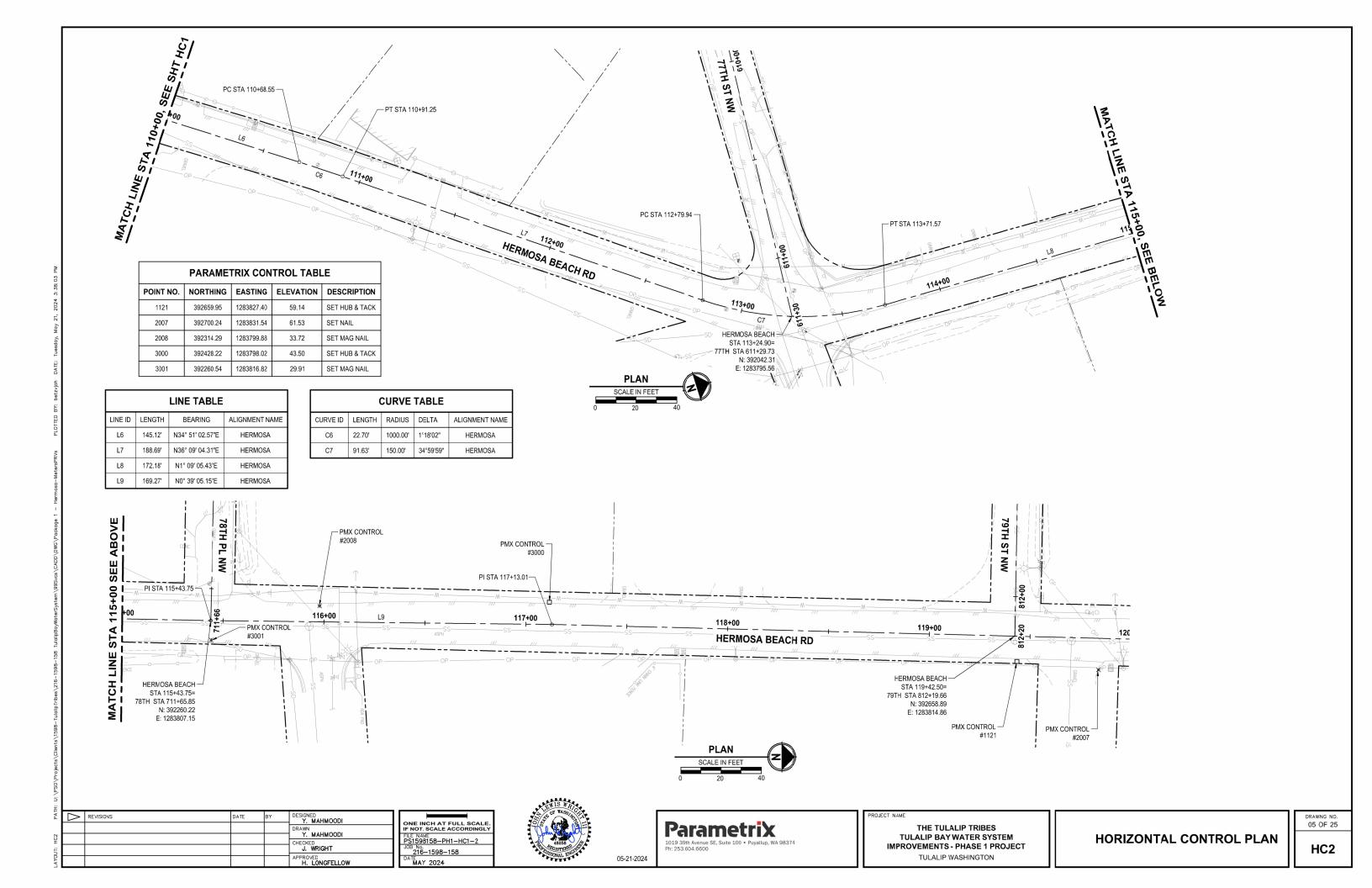


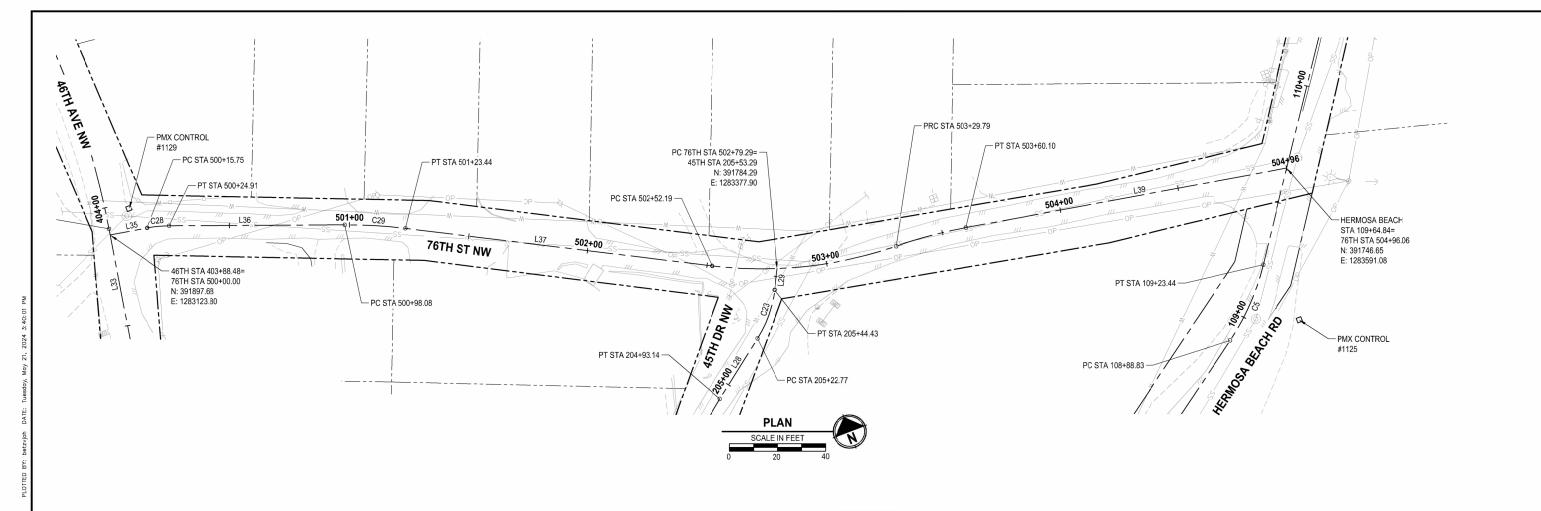
THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT TULALIP WASHINGTON

**KEY MAP WATER METER AND PRV** HERMOSA BEACH ROAD AND FRYBERG ESTATES DRAWING NO. 03 OF 25

KM1







PARAMETRIX CONTROL TABLE							
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION			
1125	391685.84	1283573.15	19.49	SET HUB & TACK			
1129	391905.20	1283135.02	88.47	SET HUB & TACK			

LINE TABLE							
LINE ID	LENGTH	BEARING	ALIGNMENT NAME				
L35	15.75'	S79° 38' 10.15"E	76TH				
L36	73.17'	S69° 07' 56.03"E	76TH				
L37	128.76'	S61° 52' 10.92"E	76TH				
L39	135.95'	S79° 20' 30.00"E	76TH				

CURVE TABLE							
CURVE ID	LENGTH	RADIUS	DELTA	ALIGNMENT NAME			
C28	9.17'	50.00'	10°30'14"	76TH			
C29	25.35'	200.00'	7°15'45"	76TH			

PAT	Δ	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
					DRAWN Y. MAHMOODI
нсз					CHECKED
OUT:					J. WRIGHT
Σ					APPROVED

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IF NOT, SCALE ACCORDINGLY
FILE NAME
PS1598158-PH1-HC3
JOB No.
216-1598-158
DATE
MAY 2024





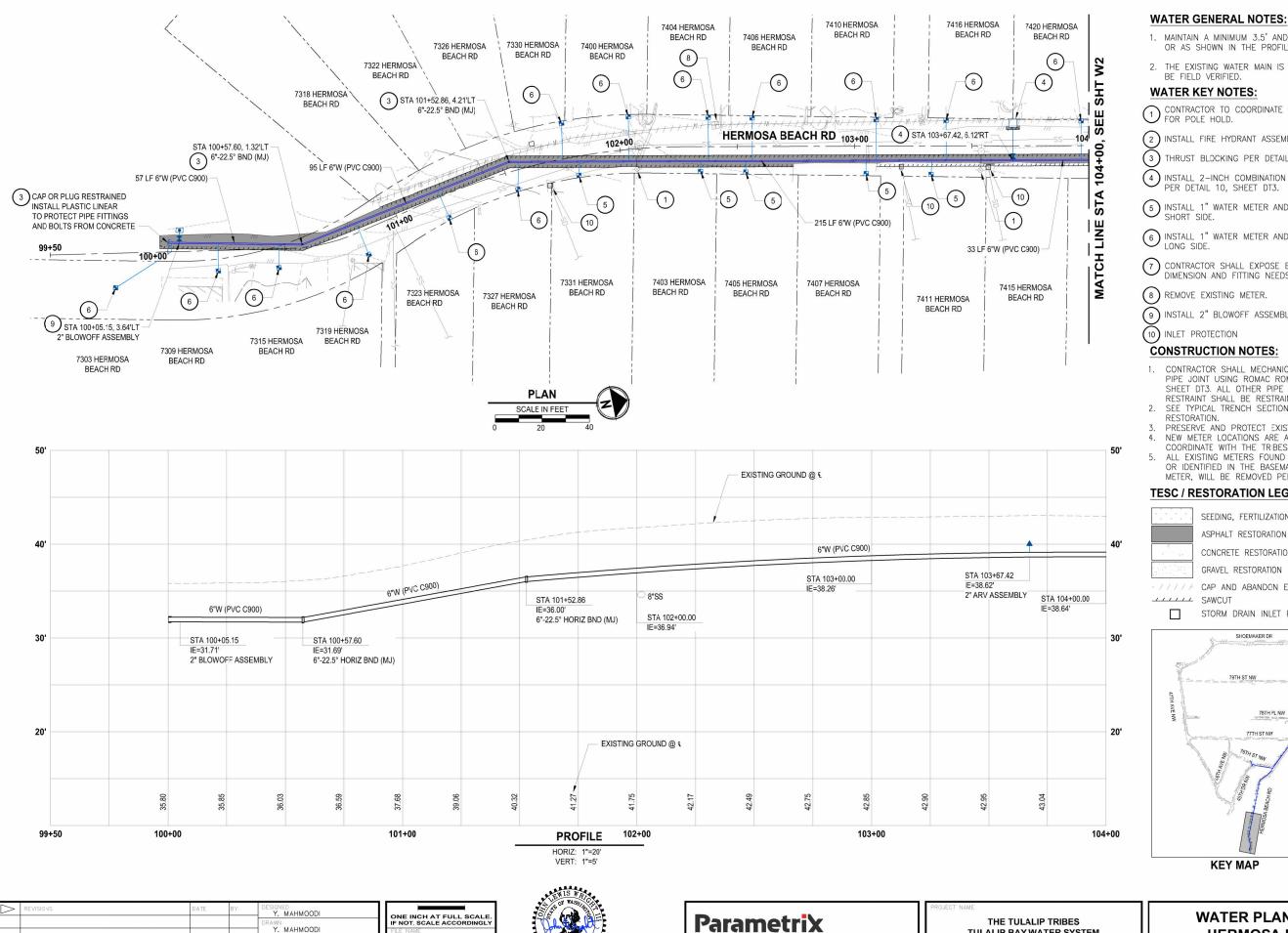
ROJECT NAME

THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

HORIZONTAL CONTROL PLAN

DRAWNG NO. 06 OF 25

HC3



Ph: 253.604.6600

05-21-2024

Y. MAHMOODI

J. WRIGHT

PS1598158-PH1-W01-05

216-1598-158

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL
- $\begin{picture}(60,0)\put(0,0){\line(0,0){10}}\put(0,0){\line(0,0){10}$
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- 4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY
- 5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 -
- 6 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 -
- (7) CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

- CONTRACTOR SHALL MECHANICALLY RESTRAIN WATER MAIN FITTINGS AND PIPE JOINT USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS SHALL NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH FIELD LOK GASKETS.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT
- PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

#### TESC / RESTORATION LEGEND

SEEDING, FERTILIZATION, AND MULCHING ASPHALT RESTORATION

CONCRETE RESTORATION GRAVEL RESTORATION

//// CAP AND ABANDON EXISTING WATER MAIN

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00





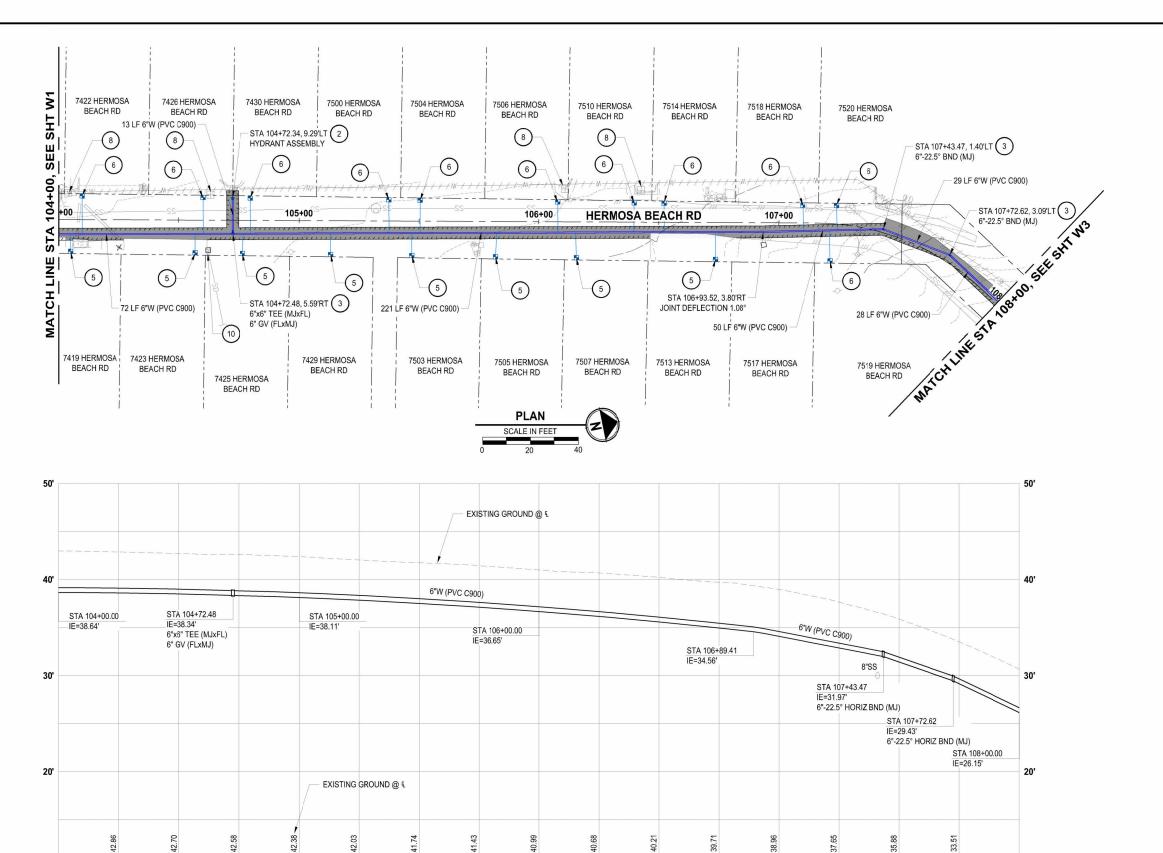
TULALIP BAY WATER SYSTEM

**IMPROVEMENTS - PHASE 1 PROJECT** 

TULALIP WASHINGTON

**WATER PLAN & PROFILE HERMOSA BEACH RD** STA 99+50 - STA 104+00

07 OF 25 W1



- MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.

#### **WATER KEY NOTES:**

- ONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- (4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.
- 5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 SHORT SIDE.
- 6 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 -
- 7 CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- (8) REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- (10) INLET PROTECTION

#### **CONSTRUCTION NOTES:**

- CONTRACTOR SHALL MECHANICALLY RESTRAIN WATER MAIN FITTINGS AND PIPE JOINT USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS SHALL NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH FIELD LOK GASKETS.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
- 3. PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRBES AND FIELD VERIFY THE NEW LOCATIONS.
- 5. ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

#### **TESC / RESTORATION LEGEND**

SEEDING, FERTILIZATION, AND MULCHING
ASPHALT RESTORATION
CONCRETE RESTORATION

GRAVEL RESTORATION

//// CAP AND ABANDON EXISTING WATER MAIN

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00





KEY	MAP

Call before you d

$\triangleright$	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
				DRAWN
				Y. MAHMOODI  CHECKED
				J. WRIGHT
				APPROVED H. LONGFELLOW

105+00

104+00





05-21-2024

106+00

**PROFILE** 

HORIZ: 1"=20'

VERT: 1"=5'

Parametrix

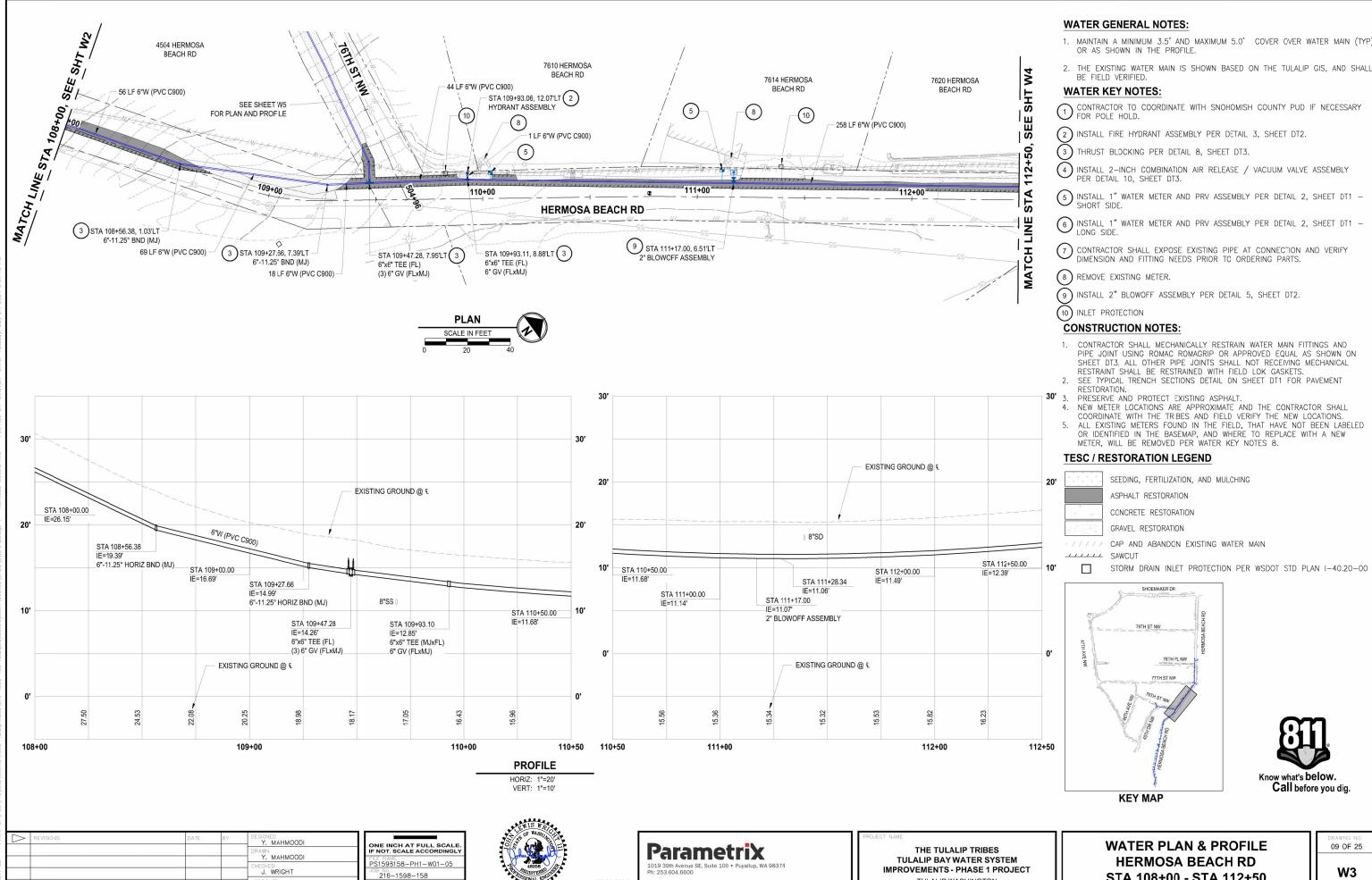
1019 39th Avenue SE, Suite 100 • Puyallup, WA 98374
Ph: 253.604.6600

107+00

THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

108+00

WATER PLAN & PROFILE HERMOSA BEACH RD STA 104+00 - STA 108+00 08 OF 25

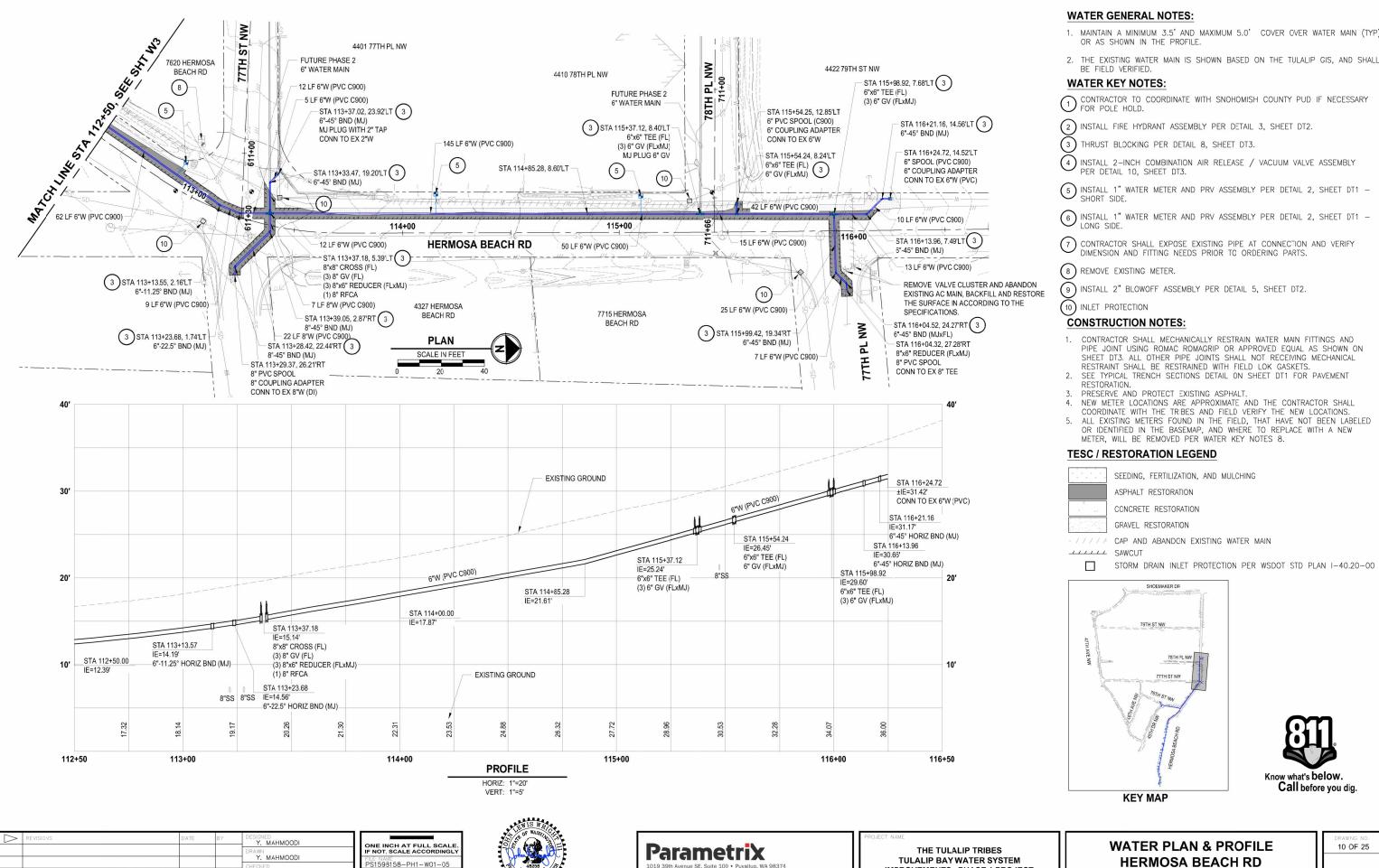


05-21-2024

H. LONGFELLOV

STA 108+00 - STA 112+50

TULALIP WASHINGTON



05-21-2024

J. WRIGHT

216-1598-158

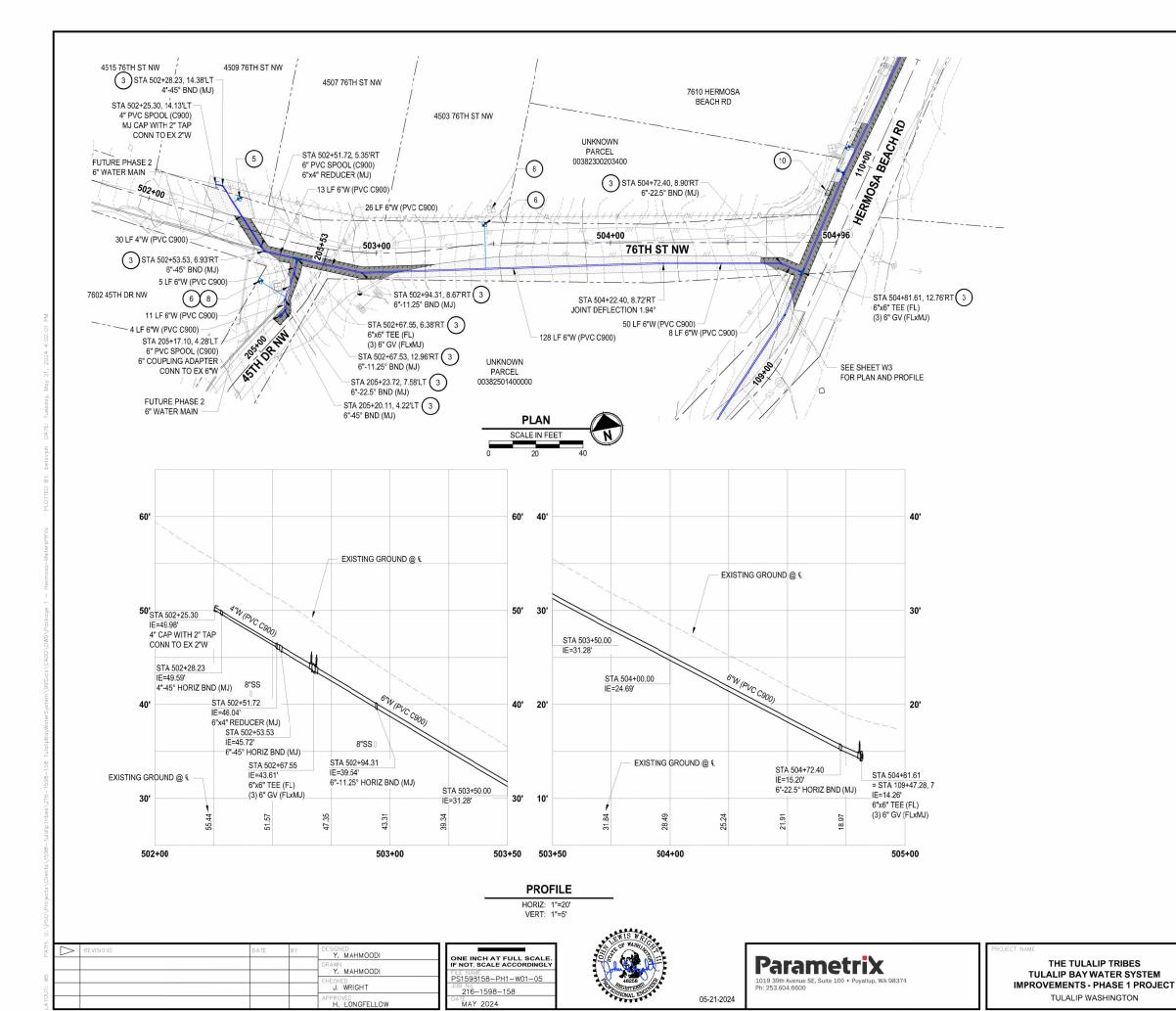
**HERMOSA BEACH RD** STA 112+50 - STA 116+50

**IMPROVEMENTS - PHASE 1 PROJECT** 

TULALIP WASHINGTON

W4

10 OF 25



- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.

#### **WATER KEY NOTES:**

- $\begin{picture}(60,0)\put(0,0){\line(0,0){10}}\put(0,0){\line(0,0){10}$
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- 4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.
- (5) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 -
- 6 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 -
- 7 CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- (8) REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- (10) INLET PROTECTION

#### **CONSTRUCTION NOTES:**

- 1. CONTRACTOR SHALL MECHANICALLY RESTRAIN WATER MAIN FITTINGS AND PIPE JOINT USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS SHALL NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH FIELD LOK GASKETS.
- 2. SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
- PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

#### TESC / RESTORATION LEGEND

SEEDING, FERTILIZATION, AND MULCHING ASPHALT RESTORATION

CONCRETE RESTORATION

GRAVEL RESTORATION

//// CAP AND ABANDON EXISTING WATER MAIN

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00



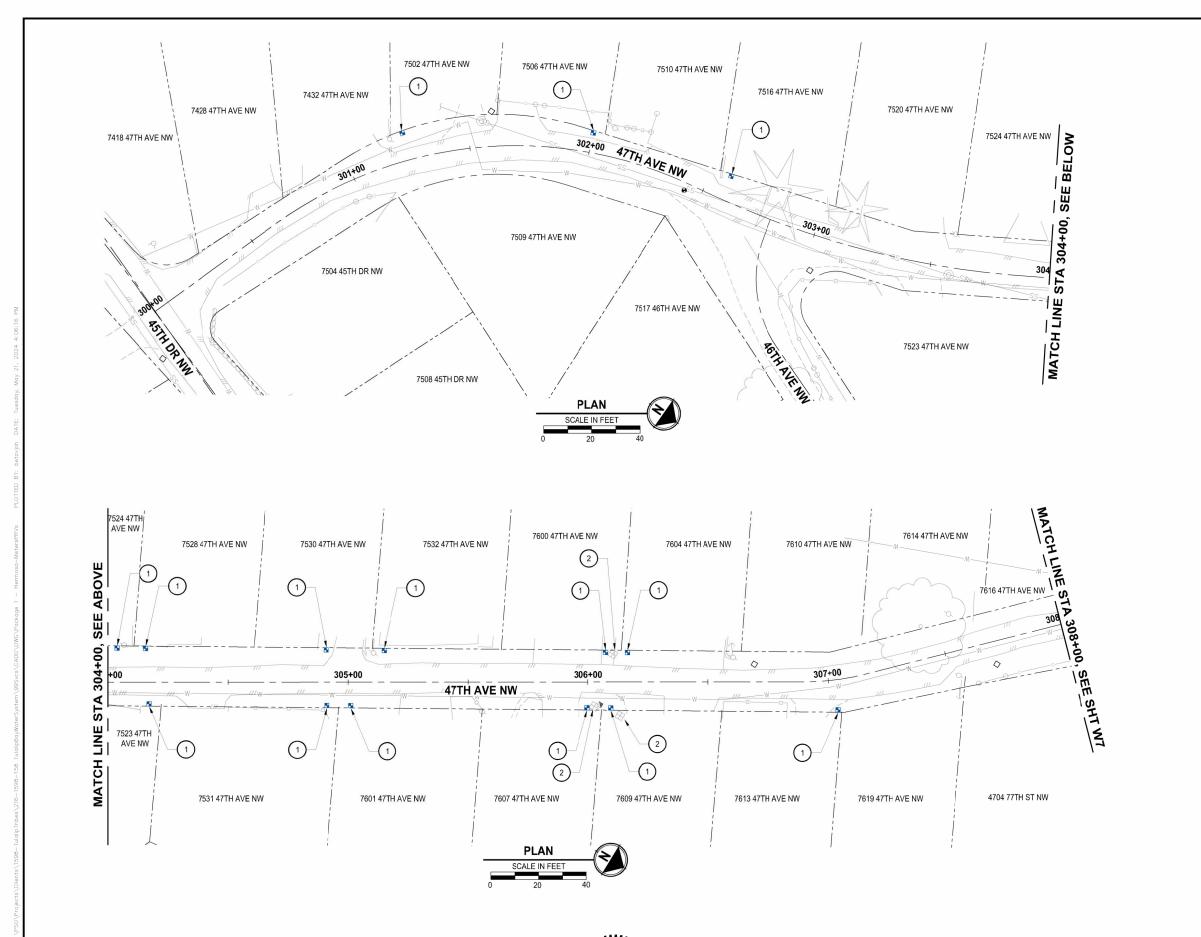


**KEY MAP** 

Know what's below.

**WATER PLAN & PROFILE 76TH ST NW** STA 502+00 - END

11 OF 25



- 1. MAINTAIN A MINIMUM 2' COVER OVER SERVICE LINE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.
- 3. CENTERLINE ALIGNMENT IS FOR THE SHEET CUT REFERENCE ONLY.

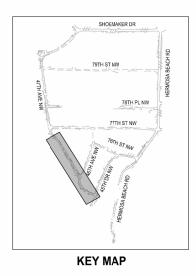
#### **WATER KEY NOTES:**

1) INSTALL NEW METER AND PRV

(2) REMOVE EXISTING METER

#### **CONSTRUCTION NOTES:**

- NEW METER LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- 2. PRESERVE AND PROTECT EXISTING ASPHALT.
- 3. ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 2.





	$\triangle$	REVISIONS	DATE	BY	Y. MAHMOODI
					DRAWN Y. MAHMOODI
0.0					CHECKED
					J. WRIGHT
2					APPROVED H. LONGFELLOW

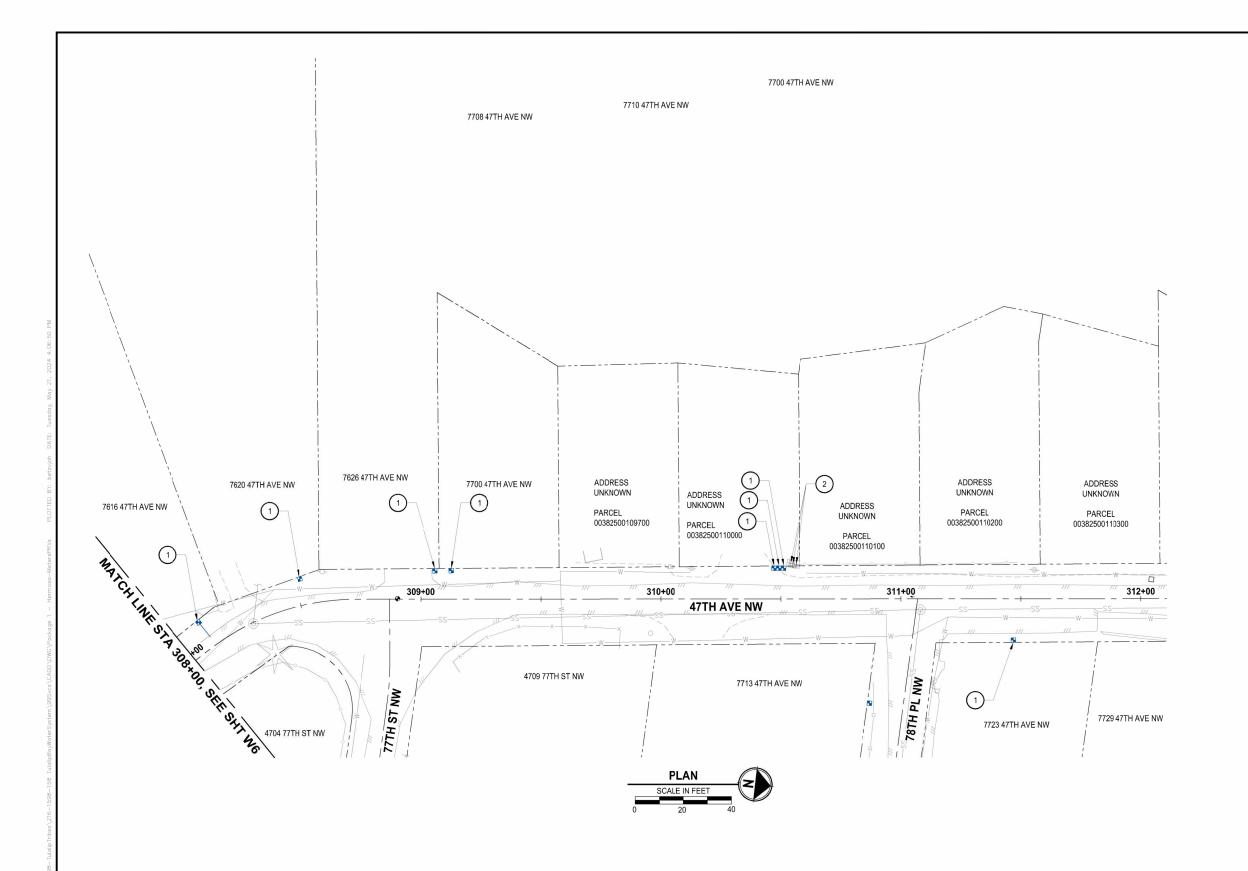
ONE INCH AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY
FILE NAME
PS1598158-PH1-W06-09
JOB No.
216-1598-158
DATE
MAY 2024





THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

WATER METER AND PRV 47TH AVE NW DRAWNG NO. 12 OF 25



- 1. MAINTAIN A MINIMUM 2' COVER OVER SERVICE LINE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.
- 3. CENTERLINE ALIGNMENT IS FOR THE SHEET CUT REFERENCE ONLY.

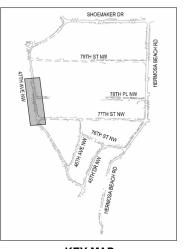
#### **WATER KEY NOTES:**

(1) INSTALL NEW METER AND PRV

(2) REMOVE EXISTING METER

#### **CONSTRUCTION NOTES:**

- NEW METER LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- 2. PRESERVE AND PROTECT EXISTING ASPHALT.
- 3. ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 2.



**KEY MAP** 



PAT	$\triangle$	REVISIONS	DATE	BY	Y. MAHMOODI
					DRAWN Y. MAHMOODI
W7					CHECKED
Ë					J. WRIGHT
A YO					APPROVED H. LONGFELLOW

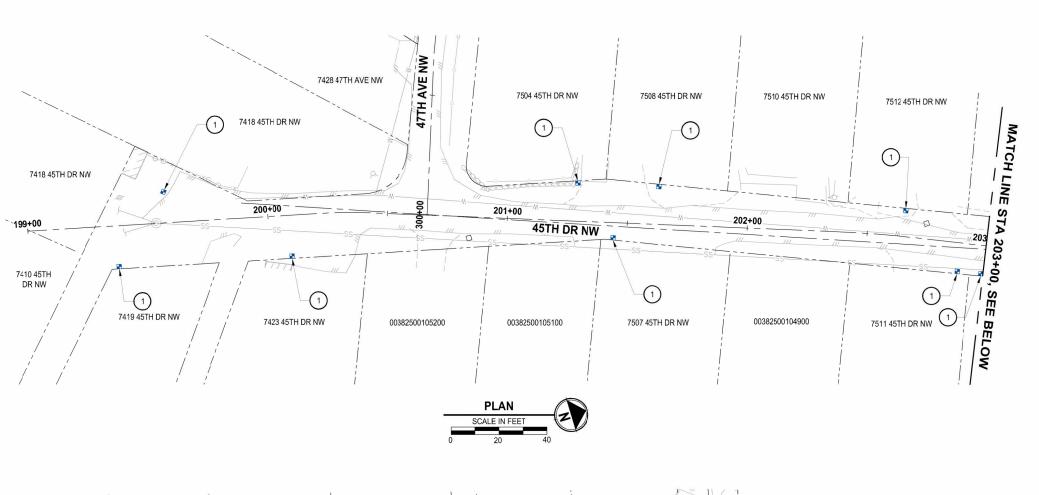


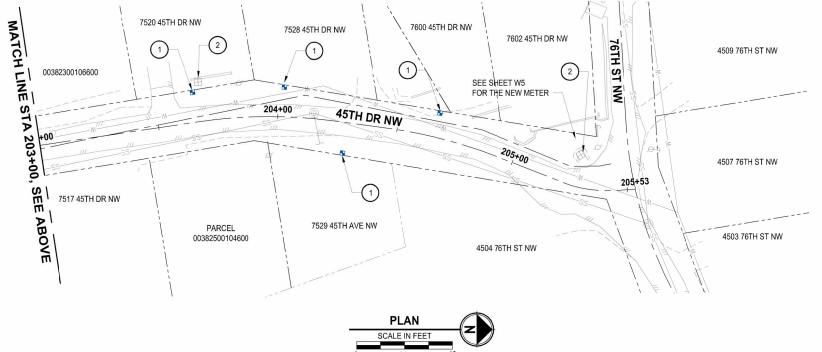


THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

**WATER METER AND PRV 47TH AVE NW** 

13 OF 25





- 1. MAINTAIN A MINIMUM 2' COVER OVER SERVICE LINE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.
- CENTERLINE ALIGNMENT IS FOR THE SHEET CUT REFERENCE ONLY.

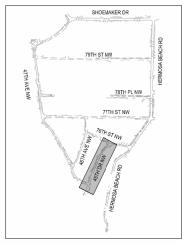
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(2) REMOVE EXISTING METER

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- 2. PRESERVE AND PROTECT EXISTING ASPHALT.
- 3. ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 2.



**KEY MAP** 



H A H	$\triangle$	REVISIONS	DATE	BY	DESIGNED Y. MAHMOODI
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: W8					CHECKED J. WRIGHT
7.00					APPROVED

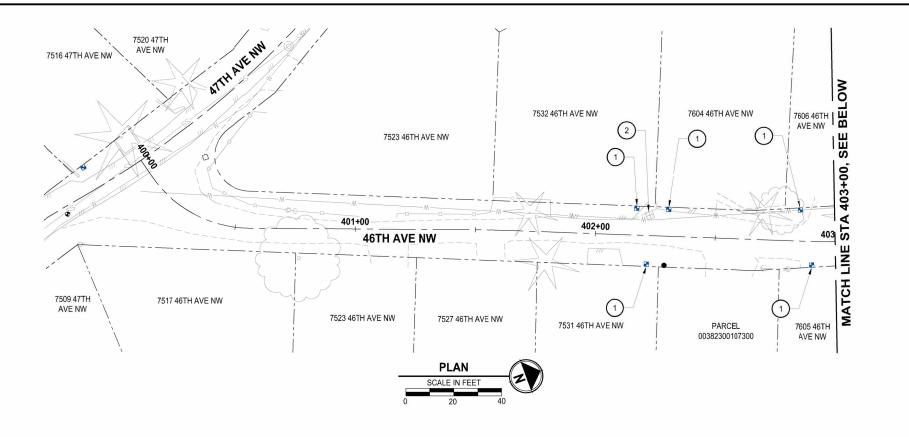
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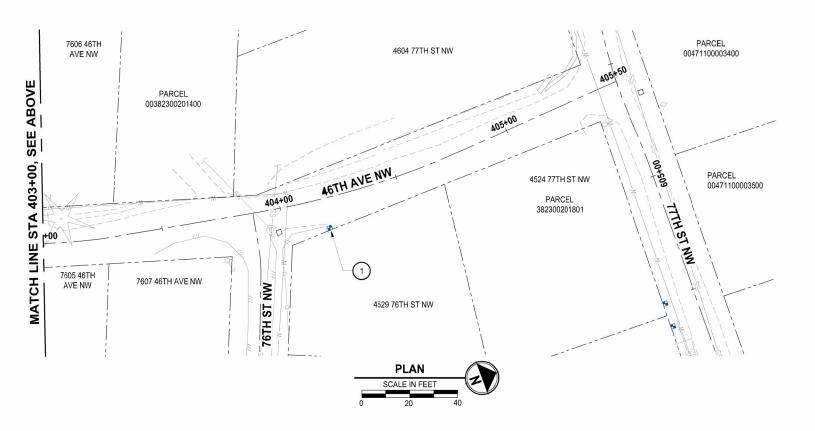




THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

WATER METER AND PRV 45TH AVE NW DRAWNG NO. 14 OF 25





- 1. MAINTAIN A MINIMUM 2' COVER OVER SERVICE LINE.
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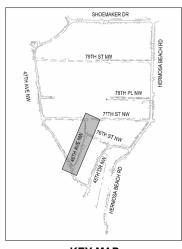
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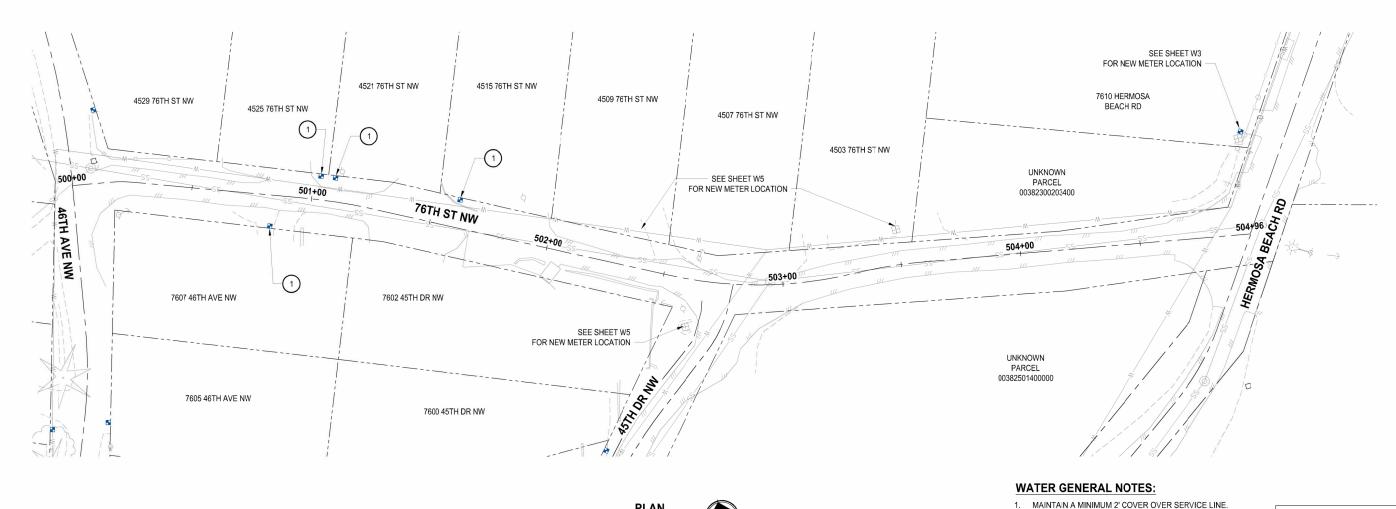
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THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

WATER METER AND PRV 46TH AVE NW DRAWNG NO. 15 OF 25



# THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED. CENTERLINE ALIGNMENT IS FOR THE SHEET CUT REFERENCE ONLY.

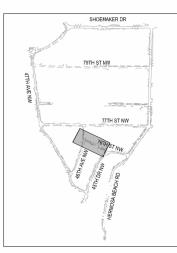
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1 INSTALL NEW METER AND PRV

2 REMOVE EXISTING METER

#### **CONSTRUCTION NOTES:**

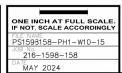
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**KEY MAP** 



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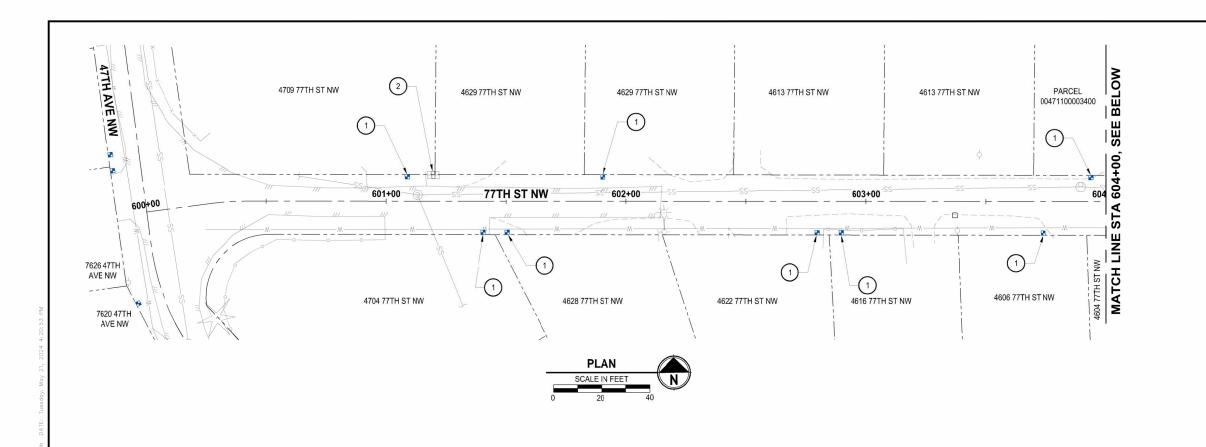


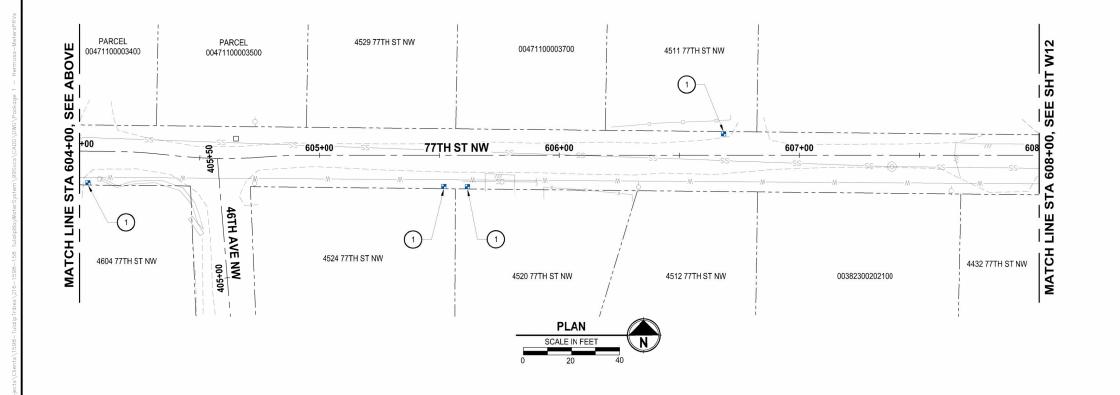


ROJECT NAME

THE TULALIP TRIBES
TULALIP BAY WATER SYSTEM
IMPROVEMENTS - PHASE 1 PROJECT
TULALIP WASHINGTON

WATER METER AND PRV 76TH ST NW 16 OF 25





- 1. MAINTAIN A MINIMUM 2' COVER OVER SERVICE LINE.
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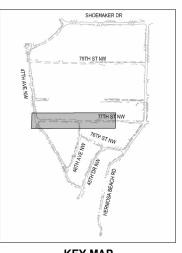
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**KEY MAP** 



PA	$\triangle$	REVISIONS	DATE	BY	Y. MAHMOODI
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AYOL					APPROVED H. LONGFELLOW

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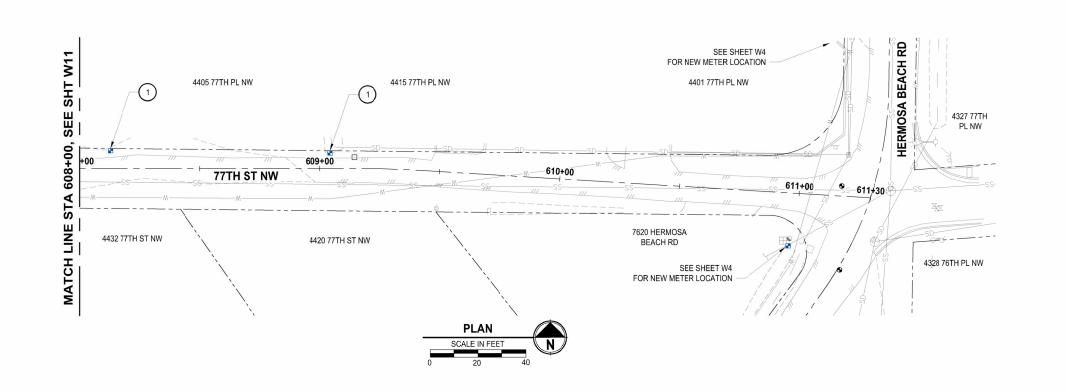
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**Parametrix** 

THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

**WATER METER AND PRV** 77TH ST NW

17 OF 25



#### SEE SHT W13 PARCEL PARCEL PARCEL PARCEL PARCEL 00471100001400 00471100001200 00471100001300 00471100001500 00471100001100 47TH AVE NW 7723 47TH AVE NW 704+00, -701+00-703+00 700+00 702+00 78TH PL NW MATCH LINE STA 7713 47TH AVE NW PARCEL 00471100002800 PARCEL 00471100002600 PARCEL PARCEL 00471100002900 00471100002700 **PLAN**

#### **WATER GENERAL NOTES:**

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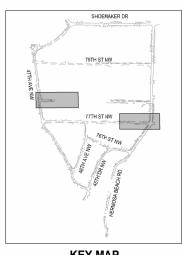
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**KEY MAP** 



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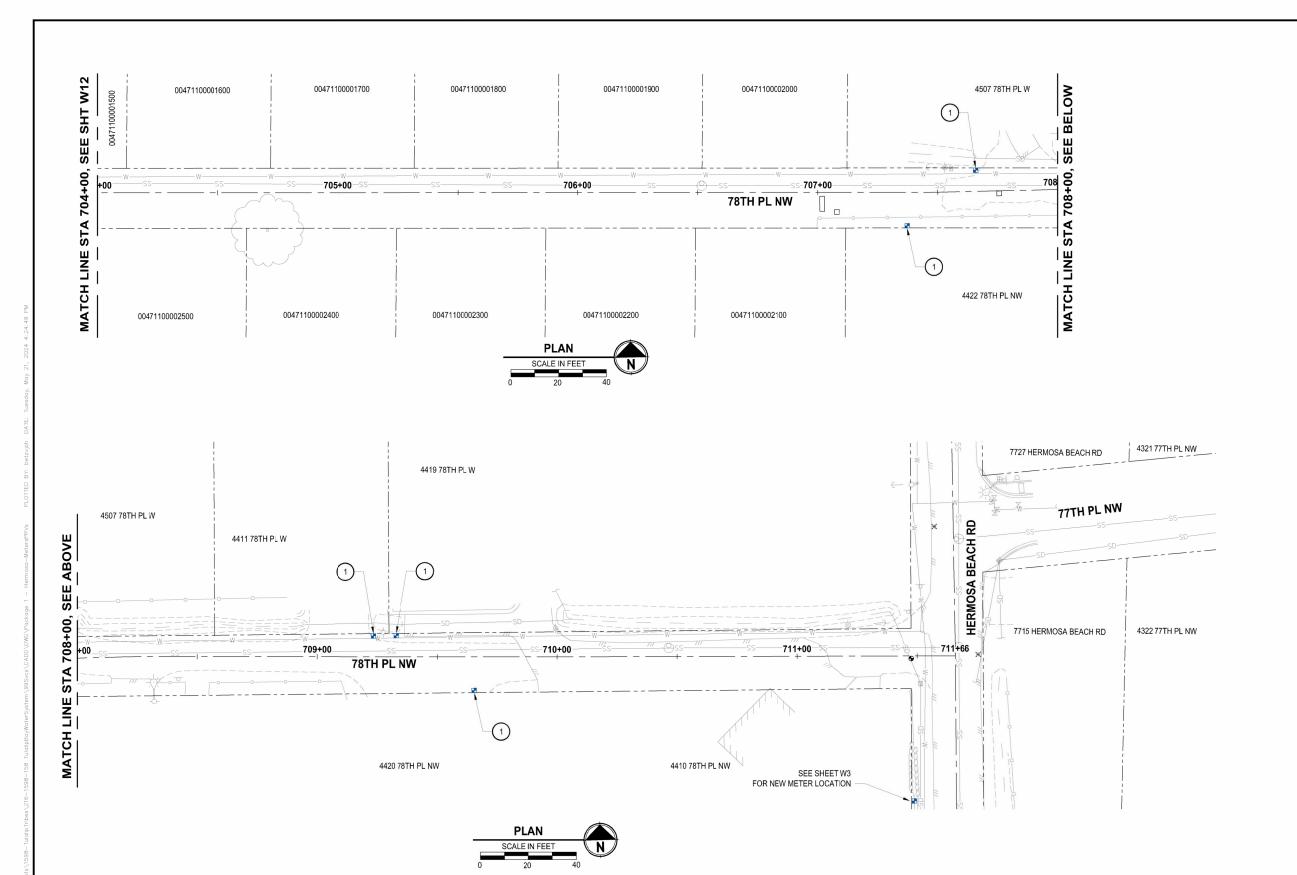
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THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

**WATER METER AND PRV 77TH ST NW & 78TH PL NW**  18 OF 25



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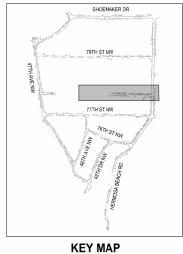
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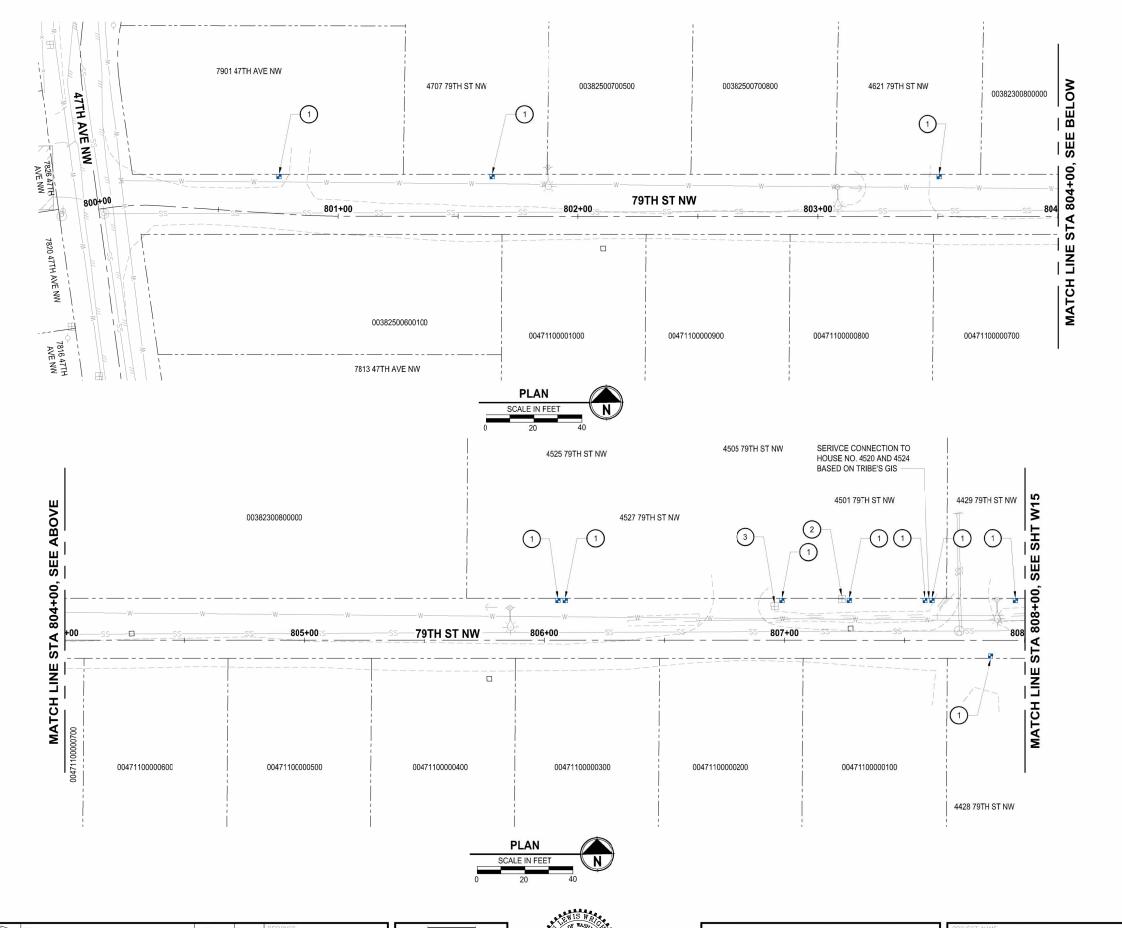


**Parametrix** 05-21-2024

THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

**WATER METER AND PRV** 78TH PL NW

19 OF 25



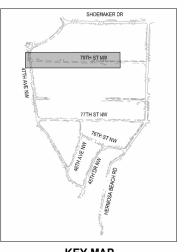
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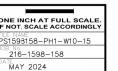
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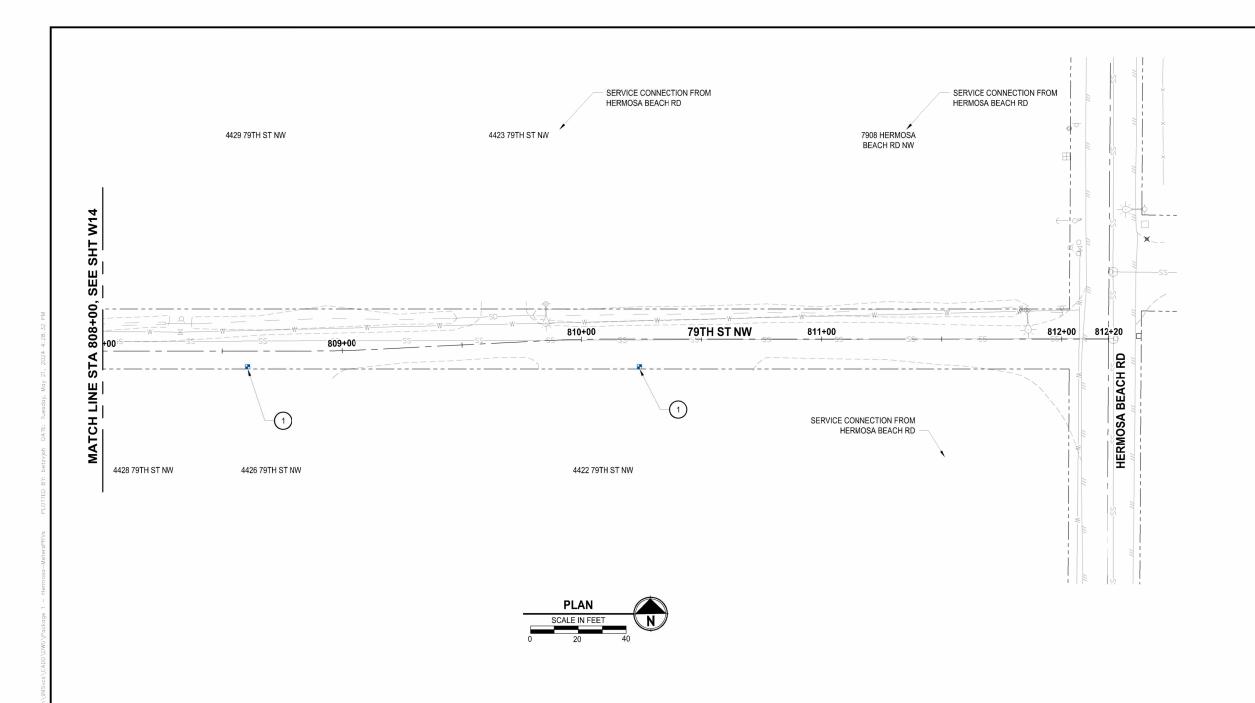




THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

**WATER METER AND PRV 79TH ST NW** 

20 OF 25



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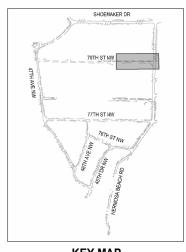
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PA	$\triangle$	REVISIONS	DATE	BY	Y. MAHMOODI
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AYOL					APPROVED H. LONGFELLOW



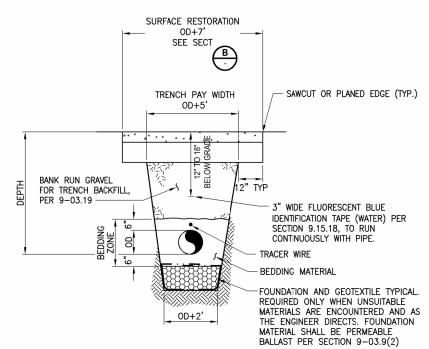




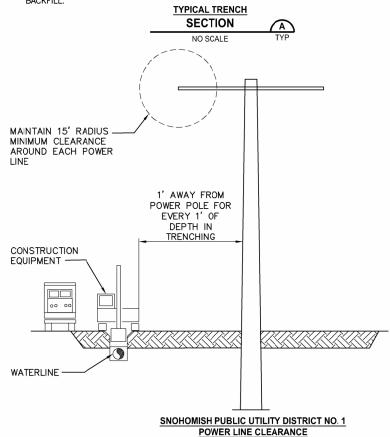
THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

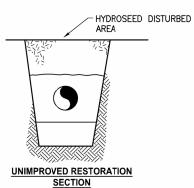
**WATER METER AND PRV 79TH ST NW** 

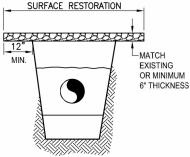
21 OF 25



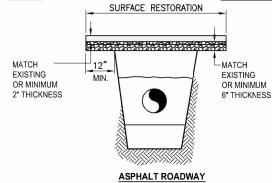
- OMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 95% IN PAVED OR SHOULDER AREAS AS
- 2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT/APWA STANDARD SPECIFICATIONS.
- 3. NATIVE MATERIAL MEETING REQUIREMENTS OF 9-03.19 IS ACCEPTABLE FOR TRENCH







**GRAVEL ROADWAY** RESTORATION SECTION



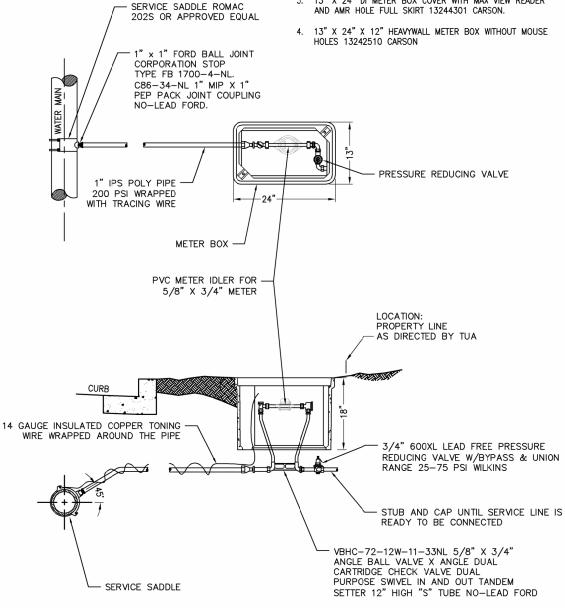
TYPICAL RESTORATION SECTION NO SCALE

RESTORATION SECTION

- 1. THE CONTRACTOR WORKING ADJACENT TO OR UNDERNEATH POWER LINES SHALL MEET THE REQUIREMENTS OF WAC 296-24-960.
- 2. POWER WIRES ARE LOCATED JUST INSIDE (SOUTH SIDE OF MARINE DR) THE CONSTRUCTION LIMITS AREA. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN MOBILIZED ADJACENT TO OR DIRECTLY BELOW POWER LINES, PARTICULARLY WHEN USING EQUIPMENT WITH EXTENDED BOOM OR BUCKET. SNOHOMISH PUBLIC UTILITY DISTRICT REQUIRES MINIMUM CLEARANCE FROM EACH POWER LINE OF 15 FT RADIUS.
- HEIGHT OF POWER LINE IS LOWEST AT APPROXIMATELY THE CENTER OF SPAN WHERE SAG IS GREATEST. SAG MAY INCREASE DURING WINDY OR VARYING CLIMATE
- 4. SEE EASEMENT AND PERMIT AGREEMENTS IN THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 5. SAFETY WATCH. THE CONTRACTOR SHALL ENTER INTO AN AGREEMENT WITH SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT NO. 1 FOR A SAFETY WATCH FOR ALL WORK PERFORMED WITHIN 15 FT OF POWER LINES. ALL COSTS ASSOCIATED WITH THE SAFETY WATCH SHALL BE BORNE BY THE CONTRACTOR.
- 6. IN CASE OF EMERGENCY, CALL SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT AT 425-783-1000 TO DISPATCH A QUALIFIED ELECTRICAL WORKER.

#### APPROVED METER BOX

- 13" X 24" X 18" DEEP RPM METER BOX WITH MOUSEHOLES 20K RATED A6001946PCX12 ARMORCAST.
- 13" X 24" RPM COVER WITH HINGED CI READER LID & TOUCH READ HOLE 10K RATED MARKED "WATER METER" A6001866RCI-H7 ARMORCAST.
- 13" X 24" DI METER BOX COVER WITH MAX VIEW READER AND AMR HOLE FULL SKIRT 13244301 CARSON.



STAINLESS STEEL INSERTS
 REQUIRED FOR ALL PACK JOINTS

2. ALL SERVICE SADDLES AND FITTINGS SHALL HAVE I.P. THREADS.



NO SCALE REVISIONS Y. MAHMOODI Y. MAHMOODI J. WRIGHT

**DETAIL** 

H. LONGFELLOW

NE INCH AT FULL SCALE NOT, SCALE ACCORDINGL FILE NAME PS1598158-PH1-DT1 JOB No. <u>216–1598–158</u>



**Parametrix** Ph: 253.604.6600 05-21-2024

ROJECT NAME

THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM** IMPROVEMENTS - PHASE 1 PROJECT TULALIP WASHINGTON

1" WATER SERVICE

**METER ASSEMBLY** 

**DETAIL** 

NO SCALE

**WATER DETAILS** 

22 OF 25

DT1

- 2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" IN IMPROVED RIGHT-OF-WAY, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND EASEMENTS.
- 3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL.
- 4. FIRE HYDRANTS SHALL HAVE TWO 2½" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 41/2" PUMPER PORT (TACOMA STEAMER PORT THREAD, STEAMER PORT SHALL FACE THE STREET), 1¼" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 51/2" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING FITTINGS AND ACCESSORIES.
- 5. FIRE HYDRANTS SHALL BE M&H, MUELLER CENTURION OR APPROVED EQUAL MEETING REQUIREMENTS OF ANSI/AWWA C502.
- 6. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF IN THE TOP.
- 7. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON—BODIED BRONZE—MOUNTED, NON-RISING STEM, COUNTER-CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER, M&H, OR APPROVED
- 8. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (MJ) HOLDING SPOOL, WITH THE USE OF CLASS 53 DUCTILE IRON PIPE OR THE USE OF LUG STYLE PIPE RESTRAINT CONNECTORS WITH CLASS 53 DUCTILE IRON PIPE (ROMAC ROMAGRIP OR APPROVED EQUAL). EBAA IRON FITTINGS ARE NOT ALLOWED TO BE USED ON THIS
- 9. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, RESTRAINED JOINS ARE REQUIRED FOR EACH ADDITIONAL JOINT. MAXIMUM HYDRANT RUN ALLOWED IS 50 FEET.
- 10. THE CONTRACTOR SHALL PLACE A 6 0Z. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA. ENDS TO
- 11. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY TULALIP TRIBE PUBLIC WORKS.

HYDRANT ASSEMBLY	
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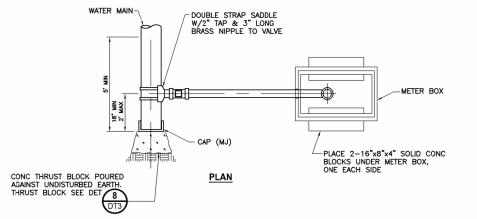
- VALVE BOX TO BE ADJUSTED FLUSH WITH FINISH PAVING. VALVE BOX LUGS ("EARS") TO ALIGN WITH DIRECTION OF FLOW. MIN. CRUSHED SURFACING TOP COURSE %"
MINUS. SEAM SEAL WITH A NARROW WAFER
THIN APPLICATION OF AR4000. SEE NOTE 7 2" SQUARE X 2" DEEP
OPERATING NUT ——— 4 ½" DIA. x ¼" (MIN. —— THICKNESS) IDLER PLATE " MIN. OVERLAP 1" SOLID STEEL BAR SQUARE SOCKET 2 ¼" INSIDE, 2 ¼" DEPTH (¾" MIN. WALL THICKNESS). DO NOT INSTALL SET SCREW -18" TOP SECTION 6" MIN. USE STANDARD 2' BASE SECTION UNTIL MIN. OVERLAP CANNOT BE ACHIEVED. FOR DEEPER INSTALLATIONS USE A 3' OR 4' BASE SECTION UNTIL OVERLAP EXTEND COLLAR AROUND VALVE CLUSTERS. 010 BASE SECTION UNTIL OVERLAP
CANNOT BE ACHIEVED. 5" SOIL
PIPE SHALL BE USED TO MAKE UP
LENGTH FOR DEEPEST
INSTALLATIONS. DO NOT STACK
BASE SECTIONS.  $\bigcirc$ 

# **VALVE BOX INSTALLATION DETAIL**

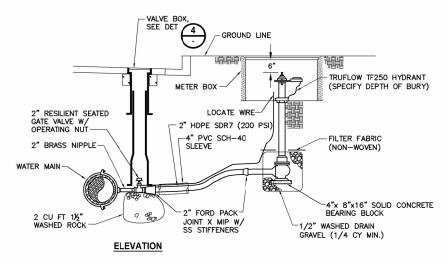
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#### NOTES:

- 1. VALVE BOX TO BE 045/046 SEATTLE/TACOMA TOP AND LID.
- 2. VALVE BOX LIDS TO BE 4" DEEP IN TRAFFIC AREAS AND A MIN. OF 3" IN OTHER LOCATIONS. LOCKING VALVE BOX LIDS (AMPRO STYLE 940) REQUIRED IF LIDS WILL NOT STAY PUT DUE TO TRAFFIC.
- 3. SAWCUT VALVE BOX COMPONENTS. BROKEN OR JAGGED VALVE BOX SECTIONS NOT ACCEPTABLE.
- 4. OVERLAY ADJUSTMENT RINGS NOT ALLOWED, UNLESS APPROVED TUA
- 5. VALVE BOX COLLARS REQUIRED IF VALVE BOX OUT OF PAVING. COLLARS TO BE FLUSH WITH FINISH SURFACE. SLOPE COLLARS AWAY FROM LID @ 2%
- 6. VALVE BOX COLLAR REQUIRED WHEN VALVE BOX OUTSIDE OF PAVING.
- 7. VALVE BOXES SHALL BE ADJUSTED AFTER PAVING AND PATCHED AS SHOWN ABOVE. VALVES CONNECTED TO THE EXISTING SYSTEM SHALL BE MADE



- 1. BLOWOFF HYDRANTS SHALL BE NON-FREEZING, SELF-DRAINING TYPE.
- 2. SET UNDERGROUND IN APPROVED 17"x30" CARSON OR 16"x31" OLYMPIC FOUNDRY METER BOX, THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET, AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING.
- 3. THE OUTLET SHALL ALSO BE BRONZE AND BE 2-1/2" NST.
- 4. HYDRANTS SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE.
- 5. TRACER WIRE SHALL BE 10 GUAGE INSULATED SOLID CORE COPPER WIRE. STRIP 6" OF INSULATION OFF END A. STRIP 12" OF INSULATION OFF END B AND WRAP AROUND SADDLE ASSEMBLY BOLT.
- 6. ANY BLOWOFF ON A DEAD END MAIN SHALL BE 18" MIN 24" MAX FROM END
- 7. METER BOX AND HYDRANT SHALL BE INSTALLED OUTSIDE OF CONCRETE AND



Know what's below. Call before you dig.

**END OF MAIN 2" BLOWOFF ASSEMBLY** 

**DETAIL** NO SCALE

ROJECT NAME

Parametrix h: 253.604.6600

3" MIN. THICKNESS ASPHALT PATCH W/ 6

THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM** IMPROVEMENTS - PHASE 1 PROJECT

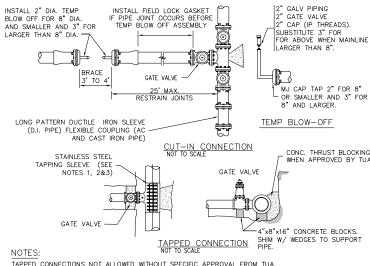
TULALIP WASHINGTON

**WATER DETAILS** 

23 OF 25

DT2

05-21-2024



- NO CONNECTION WILL BE ALLOWED UNTIL ALL PRESSURE TESTING COMPLETED, AND SATISFACTORY BACTERIOLOGICAL TEST RECEIVED. SEE CROSS CONNECTION CONTROL SECTION IN SPECIFICATIONS.
- TAPPING SLEEVE TO BE STAINLESS STEEL FOR AC PIPE AND EPOXY COATED STEEL FOR DUCTILE OR CAST IRON PIPE. CLOSEST EDGE OF TAPPING SLEEVE MUST BE 3' (MIN.) FROM COUPLING ON AC PIPE.
- 4. SEE DETAILS FOR VALVE BOX, THRUST BLOCKING. PIPE AND FITTING RESTRAINT REQUIREMENTS.
- BACKFILL PER JURISDICTIONAL REQUIREMENTS WHEN IN ASPHALT, ALL OTHER AREAS PER THE STANDARD SPECIFICATIONS.
- 6. TEMP BLOW OFF'S MUST BE PROTECTED FROM DAMAGE. PLACE IN TRAFFIC BOX IF REQUIRED.

CONNECTION REQUIREMENTS

**DETAIL** 

NO SCALE

L HIGH SIDE

**ELEVATION** 

VERTICAL BEND RESTRAINED LENGTH (L'REQUIRED EACH LEG PAST FITTING (FT)

 56
 26
 26
 12
 12

 80
 37
 37
 17
 16

NUILS:

RESTRAINED LENGTH SHALL BE ADJUSTED IF CONDITIONS DIFFER FROM ASSUMPTIONS. IF RESTRAINED LENGTH SHOWN IS NOT ACHIEVABLE, THRUST BLOCKS SHALL ALSO BE USED. CONTACT DISTRICT FOR THRUST BLOCKING DETAIL. ALL PIPE BETWEEN VERTICAL BENDS SHALL BE RESTRAINED.

RESTRAINED LENGTHS CAN BE ADJUSTED WITH SITE SPECIFIC SOILS INFORMATION, ENGINEER DESIGN AND DISTRICT APPROVAL.

90' VERTICAL BENDS ARE NOT ALLOWED.

MULTIPLE FITTINGS IN MULTIPLE PLANES SHALL BE DESIGNED AND STAMPED ON AN INDIVIDUAL BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

ASSI IMPTIONS:

LAYING CONDITION 3.
SAND—SLIT SOIL DESIGNATION.
SHALLOW END COVER ON 4", 6" & 8" DIA. AT 3 FEET.
LENGTH BETWEEN FITTINGS ASSUMED TO BE 4 FEET SO KNOWN LENGTH IS 2 FEET.
SAFETY FACTOR 1.5
VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.

VERTICAL BEND RESTRAINT

**DETAIL** 

NO SCALE

HIGH SIDE LOW SIDE HIGH SIDE LOW SIDE HIGH SIDE LOW SIDE

- WATER OUTAGE ONLY ALLOWED TUESDAY THROUGH THURSDAY 9:00AM TO 3:00PM. (7) WORKING DAYS NOTICE REQUIRED.
- 8. ALL MJ JOINTS TO BE ROMAC OR EQUAL

SHALLOW

FND

FIELD LOCK — GASKET OR MECHANICAL JOINT REQUIRED AT "L"— TYP.

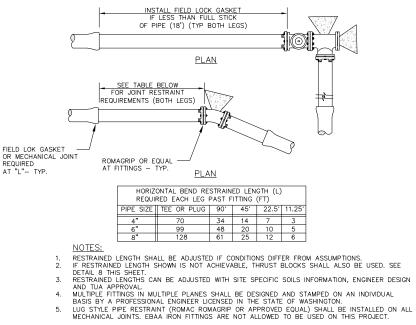
NOTES:

ASSUMPTIONS: TEST PRESSURE 250 PSI. AYING CONDITION 3.

SIMILAR TEMP B.O. REQUIREMENTS FOR TAPPED CONNECTIONS, LOCATE BLOW OFF OUT OF ASPH. WHEN POSSIBLE

L LOW SIDE

ALL FITTINGS AND PIPE SHALL BE STERILE SWABBED. CONNECTION SHALL BE INSPECTED FOR VISUAL LEAKAGE UNDER FULL LINE PRESSURE PRIOR TO BACKFILL.



RESTRAIN PIPE JOINTS W/ FIELD

LOCK GASKETS (MIN. 35') EACH SIDE OF IN-LINE VALVE

**ELEVATION** 

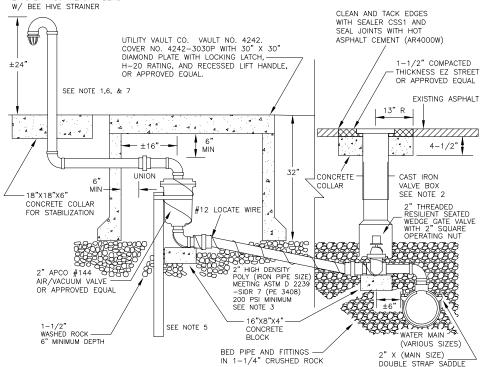
#### ASSUMPTIONS:

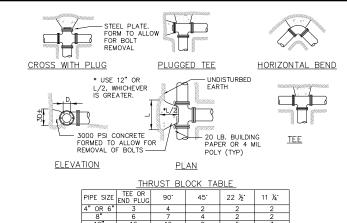
- TEST PRESSURE 250 PSI. LAYING CONDITION 3.

05-21-2024

LATING CUNDITION 3.
SAND—SLIT SOIL DESIGNATION.
COVER ON 6" & 8" DIA. AT 3 FEET.
SAFETY FACTOR 1.5
VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.







- BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SOIL BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.
- 2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPES, PRESSURES AND SOIL CONDITIONS
- 3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF ½ SQUARE FOOT BEARING AGAINST THE FITTING. SIDES SHALL BE FORMED WITH PLYWOOD OR EQUIVALENT.

MINIMUM BEARING AREA AGAINST UNDISTURBED EARTH (SQUARE FEET)

- 4. THRUST BLOCK SHALL BEAR AGAINST FITTING ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT
- 5. CONCRETE TO BE 3000 PSI MINIMUM. PRE-MIX CONCRETE IS PREFERRED. IF CONCRETE IS HAND MIXED THE PROPORTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COMPRESSIVE TESTS OF "HAND MIXED" CONCRETE MAY BE REQUIRED. PRE-INSPECTION OF BLOCKING AREA REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
- 6. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
- 7. SEE DETAIL NO. 7 FOR PIPE AND FITTING RESTRAINT REQUIREMENTS.



#### NOTES:

- ALL FITTINGS FROM THE WATER MAIN TO THE BOTTOM OF THE AIR/VACUUM VALVE SHALL BE BRASS. ALL FITTINGS ABOVE THE AIR/VACUUM VALVE SHALL BE GALVANIZED STEEL. WRAP GALVANIZED PIPE BELOW GROUND WITH 3M TAPE OR FOUAL TO 1" ABOVE GROUND LEVEL
- VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECE (IF NECESSARY). VALVE BOX TO BE 045/046 - SEATTLE/TACOMA TOP AND LID. THE WORD "WATER" SHALL BE CAST IN RELIEF IN THE TOP.
- 2" HIGH DENSITY POLY PIPE SHALL MAINTAIN A MINIMUM ONE-DEGREE RISE FROM THE WATER MAIN TO THE AIR/VACUUM VALVE
- AIR/VACUUM VALVE VAULT AND VENT RISER TO BE INSTALLED OUT OF THE STREET. EXACT LOCATION TO BE DETERMINED BY THE OWNER'S REPRESENTATIVE
- TO STABILIZE AIR/VACUUM VALVE, BURY 2" GALVANIZED PIPE ALONG SIDE VALVE. SECURE WITH STAINLESS STEEL STRAP. SET TOP OF GALVANIZED PIPE 2" BELOW AIR/VACUUM FLANGE.
- VENT RISER AND RETURN BEND SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 OR APPROVED
- $^{7.}$  IF NEW PLAT, INCLUDE EASEMENT BEHIND SIDEWALK FOR VENT RISER. VENT RISER SHALL BE NO MORE THAN 2' BEHIND SIDEWALK

2" COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY DETAIL NO SCALE



REVISIONS DESIGNED
Y. MAHMOODI DRAWN Y. MAHMOODI CHECKED J. WRIGHT

ONE INCH AT FULL SCALE F NOT, SCALE ACCORDINGL TLE NAME 98158-PH1-DT1 JOB No. 216-1598-158 DATE MAY 2024

DEEP END

2" GALV. 180' RETURN BEND

**Parametrix** 

ROJECT NAME THE TULALIP TRIBES TULALIP BAY WATER SYSTEM **IMPROVEMENTS - PHASE 1 PROJECT** 

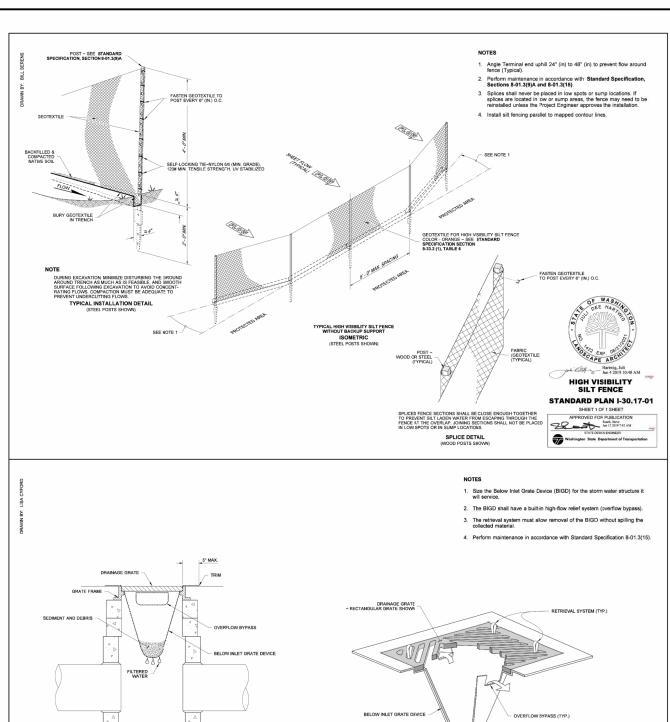
TULALIP WASHINGTON

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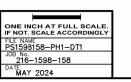
**WATER DETAILS** 

DRAWING NO 24 OF 25

DT3



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#### ROJECT NAME

THE TULALIP TRIBES **TULALIP BAY WATER SYSTEM IMPROVEMENTS - PHASE 1 PROJECT** TULALIP WASHINGTON

#### **TESC DETAILS**

DRAWNG NO. 25 OF 25

Know what's below. Call before you dig.

DT4

**EROSION/SEDIMENTATION CONTROL NOTES** 

CONTRACTOR SHALL SUBMIT A TEMPORARY WATER POLLUTION/EROSION CONTROL PLAN PER THE CONTRACT PROVISIONS.

ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION.

3. ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES SHALL BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION ACTIVITIES TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE EXISTING DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON—SITE EROSION HAS PASSED. THE

IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

4. THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.

5. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL STORM DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE CLEANED AFTER COMPLETION OF THE PROJECT.

THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.

7. TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON—SITE EROSION HAS PASSED.

ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORM WATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

9. NO DISTURBED SOIL SHALL REMAIN UNSTABILIZED FOR MORE THAN SEVEN CALENDAR DAYS.

BACKFILLED &  COMPACTED  BURY GEOTEXTILE  BURY GEOTEXTILE  DURING EXCAVATION MINIMIZE DISTURBING THE SROUND AROUND TRENCH AS MUCH AS IS FRABEL AND SMOOTH BURNES CANAVATION FLOWS  TYPICAL HOR VERY  SEE NOTE 1  TYPICAL HOR VERY  SEE NOTE 1  TYPICAL HOR VERY  SEE NOTE 1  TYPICAL HOR VERY  SEE NOTE 1	ETRIC \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
DRAMAGE GRATE  OVERFLOW BYPASS  SECTION VIEW  NOT TO SCA.E	NOTES  1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.  2. The BIGD shall have a built-in high-flow relief system (overflow bypass).  3. The retrieval system must allow removal of the BIGD without spilling the collected material.  4. Perform maintenance in accordance with Standard Specification 8-01.3(15).  DRAMAGE GRATE  COTANUALAR GRATE SHOWN  RETRIEVAL SYSTEM (TYP)  STATE OF WASHINGTON LANGE ARCHITECT  LANGE ARCHITE